

Amendments To The Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-41. (Cancelled)

42. (New) An apparatus for rectification of liquid mixtures or for scrubbing of gases, said apparatus comprising
an elongated processing chamber extending in a substantially horizontal direction,

means for supplying liquid into the processing chamber at a first end thereof,

means for discharging a liquid from the processing chamber at an opposite, second end thereof,

liquid application means arranged at the bottom of the processing chamber and extending along at least a major part of the length of the chamber for repeatedly throwing supplied liquid transversely to the longitudinal axis of the processing chamber,

means for supplying gas into the processing chamber
and

means for discharging gas from the processing chamber so as to obtain a generally counter-current movement of liquid and gas through the processing chamber,

the liquid application means comprising a rotor defining liquid collecting pockets or chambers opening in the direction of rotation,

wherein the liquid application means further comprise an upwardly open liquid channel extending axially along the lower part of the processing chamber and having opposite ends, which are in communication with the liquid supplying means and the liquid discharging means, respectively, at least the lower part of the rotor being arranged within the liquid channel,

wherein the liquid application means comprise a liquid receiving chamber or channel for receiving liquid flowing downwards along the inner peripheral wall of the processing chamber, the receiving chamber communicating with the liquid channel via an adjustable, longitudinally extending opening or slot,

wherein the liquid receiving chamber is defined between the peripheral inner wall of the processing chamber and a flap or plate member being pivotal about a longitudinal axis so as to allow adjustment of a space defined between the

lower edge of the flap member and the adjacent part of the inner wall of the processing chamber.

43. (New) An apparatus according to claim 41, wherein the liquid collecting pockets or chambers have a U-shaped cross-section opening in direction of rotation and being adapted to throw the liquid from said opening so as to form rotating carpet-like patterns of droplets extending from the outer edge of the opening of each said pocket or chamber towards the inner wall of the processing chamber.

44. (New) An apparatus according to claim 42, wherein the processing chamber is defined by a peripheral wall and a pair of opposite end walls, at least one of the end walls comprising a releasable end wall part covering an opening, which is defined in the upper part of the end wall, said opening having dimensions sufficient to allow insertion of guide plates into the chamber through such opening.

45. (New) An apparatus according to claim 42, wherein the releasable end wall part is in the form of a cover with a flange connected to the end wall by screws or bolts.

46. (New) An apparatus according to claim 42, wherein the processing chamber is divided into interconnected sections or stages by means of a plurality of guide plates

each extending across a major part of the cross-section of the processing chamber, the guide plates formed and arranged so as to force gas flowing from the gas supplying means of the gas discharge means to follow a tortuous path and to flow in the opposite, transverse directions.

47. (New) An apparatus according to claim 45, wherein the inner peripheral wall of the processing chamber comprises means for releasable fastening said guide plates at any of axially spaced, predetermined positions.

48. (New) An apparatus according to claim 46, wherein the releasable fastening means comprises annular flanges fastened to and extending radially inwardly from said inner peripheral chamber wall.

49. (New) An apparatus according to claim 42, wherein at least some of the guide plates define or comprise conduits for a heating or cooling fluid.

50. (New) An apparatus according to claim 42, further comprising conveyor means for removing solid matter separated in the processing chamber from the bottom part thereof.

51. (New) An apparatus according to claim 49, wherein the conveyor means comprise a screw conveyor including a cylindrical housing communicating with the lower part of the processing chamber.

52. (New) An apparatus for rectification of liquid mixtures or for scrubbing of gases, said apparatus comprising an elongated processing chamber extending in a substantially horizontal direction,

means for supplying liquid into the processing chamber at a first end thereof,

means for discharging a liquid from the processing chamber at an opposite, second end thereof,

liquid application means arranged at the bottom of the processing chamber and extending along at least a major part of the length of the chamber for repeatedly throwing supplied liquid transversely to the longitudinal axis of the processing chamber and

means for supplying gas into the processing chamber and

means for discharging gas from the processing chamber so as to obtain a generally counter-current movement of liquid and gas through the processing chamber,

the processing chamber being defined by a peripheral wall and a pair of opposite end walls, at least one of the end walls comprising a releasable end wall part covering an opening, which is defined in the upper part of the end wall.

53. (New) An apparatus for rectification of liquid mixtures or for scrubbing 'of gases, said apparatus comprising

an elongated processing chamber extending in a substantially horizontal direction,

means for supplying liquid into the processing chamber at a first end thereof,

means for discharging a liquid from the processing chamber at an opposite, second end thereof,

liquid application means arranged at the bottom of the processing chamber and extending along at least a major part of the length of the chamber for repeatedly throwing supplied liquid transversely to the longitudinal axis of the processing chamber and

means for supplying gas into the processing chamber and

means for discharging gas from the processing chamber so as to obtain a generally counter-current movement of liquid and gas through the processing chamber,

the processing chamber being divided into interconnected sections or stages by means of a plurality of guide plates each extending across a major part of the cross-section of the processing chamber,

wherein at least some of the guide plates define or comprise conduits for a heating or cooling fluid.

54. (New) An apparatus for rectification of liquid mixtures or for scrubbing of gases, said apparatus comprising an elongated processing chamber extending in a substantially horizontal direction,

a liquid supplying device extending to the processing chamber at a first end thereof,

a liquid discharging device extending from the processing chamber at an opposite, second end thereof,

a liquid application device arranged at the bottom of the processing chamber and extending along at least a major part of the length of the chamber for repeatedly throwing supplied liquid transversely to the longitudinal axis of the processing chamber

a gas supplying device for supplying gas into the processing chamber and

a gas discharging device for discharging gas from the processing chamber so as to obtain a generally counter-

current movement of liquid and gas through the processing chamber,

the liquid application device comprising a rotor defining liquid collecting pockets or chambers opening in the direction of rotation,

wherein the liquid application device further comprises an upwardly open liquid channel extending axially along the lower part of the processing chamber and having opposite ends, which are in communication with the liquid supplying device and the liquid discharging device, respectively, at least the lower part of the rotor being arranged within the liquid channel,

wherein the liquid application device comprises a liquid receiving chamber or channel for receiving liquid flowing downwards along the inner peripheral wall of the processing chamber, the receiving chamber communicating with the liquid channel via an adjustable, longitudinally extending opening or slot,

wherein the liquid receiving chamber is defined between the peripheral inner wall of the processing chamber and a flap or plate member being pivotal about a longitudinal axis so as to allow adjustment of a space defined between the lower edge of the flap member and the adjacent part of the inner wall of the processing chamber.